

QY 4431 CCCGCCAGGGGGCGTTCTGACGTACCGCCCTCGTGTAAAGCGCGCGCGTCTGCGCC 4490  
|||||  
Db 361 CCCGCCAGGGGGCGTTCTGACGTACCGCCCTCGTGTAAAGCGCGCGCGTCTGCGCC 420  
|||||  
QY 4491 GTCCCCCGCTCGCGGCCCAATT 4511  
|||||  
Db 421 GTCCCCCGCTCGCGGCCCAATT 441  
|||||

RESULT 9  
AF155217 2842 bp mRNA linear PLN 07-SEP-1999  
LOCUS Triticum aestivum starch synthase IIA mRNA, complete cds.  
DEFINITION  
ACCESSION AF155217  
VERSION AF155217.2 GI:5834420  
KEYWORDS  
SOURCE Triticum aestivum.  
ORGANISM Triticum aestivum.  
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;  
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;  
Pooideae; Triticeae; Triticum.  
REFERENCE  
AUTHORS Li, Z., Chu, X., Mouille, G., Yan, L., Kosar-Hashemi, B., Hey, S.,  
Napier, J., Shewry, P., Clarke, B., Appels, R., Morell, M. K. and  
Rahman, S.  
TITLE The localization and expression of the class II starch synthases of  
wheat  
JOURNAL Plant Physiol. 120 (4), 1147-1156 (1999)  
MEDLINE 99373402  
PUBMED 1044098  
REFERENCE  
AUTHORS 2 (bases 1 to 2842)  
Li, Z., Chu, X., Mouille, G., Yan, L., Kosar-Hashemi, B., Hey, S.,  
Napier, J., Shewry, P., Clarke, B., Appels, R., Morell, M. K. and  
Rahman, S.  
TITLE Direct Submission  
Submitted (30-MAY-1999) CSIRO Division of Plant Industry, GPO Box  
1600, Canberra, ACT 2601, Australia  
3 (bases 1 to 2842)  
Li, Z., Chu, X., Mouille, G., Yan, L., Kosar-Hashemi, B., Hey, S.,  
Napier, J., Shewry, P., Clarke, B., Appels, R., Morell, M. K. and  
Rahman, S.  
TITLE Direct Submission  
Submitted (07-SEP-1999) CSIRO Division of Plant Industry, GPO Box  
1600, Canberra, ACT 2601, Australia  
REMARK Sequence update by submitter  
COMMENT On Sep 7, 1999 this sequence version replaced gi:5825479.  
FEATURES  
source  
1. .2842  
/organism="Triticum aestivum"  
/db\_xref="taxon:4565"  
/chromosome="7"  
89. .2488  
/product="starch synthase IIA"  
/protein\_id="AAS53263.1"  
/db\_xref="GI:5825480".  
/translation="MSSAVASAAFLALASAPGSRRRARVSAPPHAGAGRLHWP  
PPORTADGVAALAAKCKDAGIDDAASARQPRRGGAATKVAERDPVKTLD  
AAGCAPAPQADAAAPPSMNGTNGENKSTGGGATKDSGLTPAPAPHPSTQ  
RVPNGENKANVASPPTIAEVAAPSAATISIDKAPESVVAEKPSPSSGNSFVS  
ASPVNIDSDVPELKKGVIVEAPNPKALSPAPAOEDLDWPKYIGFEPEV  
AKDQAVADAGSFEHQHNDSPGAGENVVVAECSPCKTGGLGVAGALP  
KALKRGHRVWVVPYRGDYEEAYDVGRKYKKAQDMENVYFHAYIDGVDFV  
PLFRHREDIYVGSQEIIMKRMILFCRAAEVPPHPCGGVPGDNLVFTANDWHT  
LLPYLKAYTRDGLMAYTIVTHIAHQGRGVDFFTELPTELEHFLYDPV  
GGEHANYFAAGLKADQVVPVSPGLVETGEGWGLHDIIRQNDKTRGIVNGID  
MEWNPEDVHLKSDGYTNFSLGTLDSGRKCKEALRELQVAGDPLVIGRLDG  
OKQVEITADAPMIVSQDVLMLTGTGHDLESMLHFEREHQKRVGWSGLVLAH  
RITGADALLMPSRFEPCGLNQLIYAGTVPVVAHVGGRDTPVPDPFNHSLGWT  
FDRAEAKHLIALGHLRTYIDKESWRGLQERGMQDSFWEHAAKLYEDVLLKAKY  
W"

BASE COUNT 561 a 851 c 919 g 511 t

## ORIGIN

Query Match 7.0%; Score 354.4; DB 8; Length 2842;  
Best Local Similarity 99.7%; Pred. NO. 5e-34;  
Matches 355; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 4596 GCTGCCACCACTCGCGCTCGCGCGCTCTGCGCGGAGGACCAACCCGCGATCTACC 4655  
|||||  
Db 1 GCTGCCACCACTCGCGCTCGCGCGCTCTGCGCGGAGGACCAACCCGCGATCTACC 60  
|||||

QY 4656 ATGCGCCCGCCCGATCCCGCGCGCGCATGCTGCGCGGTCGCGCGCGCTT 4715  
|||||  
Db 61 ATGCGCCCGCCCGATCCCGCGCGCGCATGCTGCGCGGTCGCGCGCGCTT 120  
|||||

QY 4716 CCTCGCGCTCGCGCTCGCGCTCGCGCGGAGATACACGAGCGGGGAGGTGAGCGGCC 4775  
|||||  
Db 121 CCTCGCGCTCGCGCTCGCGCTCGCGCGGAGATACACGAGCGGGGAGGTGAGCGGCC 180  
|||||

QY 4776 GCCACCCACCGCGCGCGCGCGCATGCTGCTGCGCGCGCGCGCGCGCGCGCGCG 4835  
|||||  
Db 181 GCCACCCACCGCGCGCGCGCGCGCATGCTGCTGCGCGCGCGCGCGCGCGCGCGCG 240  
|||||

QY 4836 TCGCGACGAGGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 4895  
|||||  
Db 241 TCGCGACGAGGTGTGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 300  
|||||

QY 4896 CGCCGCGTCCCGGAGGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 4951  
|||||  
Db 301 CGCCGCGTCCCGGAGGAGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 356  
|||||

RESULT 10  
A93354 2825 bp DNA linear PAT 22-JAN-2000  
LOCUS Sequence 5 from Patent WO9745545.  
DEFINITION A93354  
ACCESSION A93354  
VERSION A93354.1 GI:6741621  
KEYWORDS bread wheat.  
SOURCE Triticum aestivum  
ORGANISM Triticum aestivum  
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;  
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;  
Pooideae; Triticeae; Triticum.  
REFERENCE  
AUTHORS Block, M. and Loerz, H.  
TITLE NUCLEIC ACID MOLECULES ENCODING ENZYMES FROM WHEAT WHICH ARE  
INVOLVED IN STARCH SYNTHESIS  
JOURNAL Patent: WO 9745545-A 5 04-DEC-1997;  
HOECHST SCHERING AGREVO GMBH (DE); BLOCK MARTINA (DE)  
FEATURES  
source  
1. .2825  
/organism="Triticum aestivum"  
/strain="CV. FLORIDA"  
/db\_xref="taxon:4565"  
/clone="PTASS1"  
/tissue\_type="CA. 21 D CARYOPSES"  
/clone\_lib="CDNA LIBRARY IN PBLUESCRIPT SK (-)"  
162. .2561  
/note="unnamed protein product"  
/codon\_start=1  
/db\_xref="GI:6741622"  
/translation="MSSAVASAAFLALASAPGSRRRARVSAPPHAGAGRLHWP  
PPORTADGVAALAAKCKDAGIDDAASARQPRRGGAATKVAERDPVKTLD  
AAGCAPAPQADAAAPPSMNGTNGENKSTGGGATKDSGLTPAPAPHPSTQ  
RVPNGENKANVASPPTIAEVAAPSAATISIDKAPESVVAEKPSPSSGNSFVS  
ASAPGSDTVSDVEQLKRGVAVEAPNPKALSPAPAOEDLDWPKYIGFEPEV  
AKDQAVADAGSFEHQHNDSPGAGENVVVAECSPCKTGGLGVAGALP  
KALKRGHRVWVVPYRGDYEEAYDVGRKYKKAQDMENVYFHAYIDGVDFV  
PLFRHREDIYVGSQEIIMKRMILFCRAAEVPPHPCGGVPGDNLVFTANDWHT  
LLPYLKAYTRDGLMAYTIVTHIAHQGRGVDFFTELPTELEHFLYDPV  
GGEHANYFAAGLKADQVVPVSPGLVETGEGWGLHDIIRQNDKTRGIVNGID  
MEWNPEDVHLKSDGYTNFSLGTLDSGRKCKEALRELQVAGDPLVIGRLDG  
OKQVEITADAPMIVSQDVLMLTGTGHDLESMLHFEREHQKRVGWSGLVLAH  
RITGADALLMPSRFEPCGLNQLIYAGTVPVVAHVGGRDTPVPDPFNHSLGWT  
FDRAEAKHLIALGHLRTYIDKESWRGLQERGMQDSFWEHAAKLYEDVLLKAKY  
W"

CDS

FILE COPY